WEST Search History

DATE: Monday, January 06, 2003

Set Name side by side	Query	Hit Count	Set Name result set
DB=USPT,PGPB,EPAB,DWPI; PLUR=YES; OP=ADJ			
L1	disrupted-in-schizophrenia or DISC1	17	L1
L2	disrupted-in-schizophrenia	2	L2
L3	devon-rs.in. or adnerson-s$.in. or burgess-P$.in. or Teague-PW.in. or kipari tM.in or semple-CS.in. or millar JK.in. or muir -wj.in.	91	L3
L4	l3 and schizophrenia	0	L4
L5	porteous-d$.in. or millar-K$.in. or Blachwood-D$.in.	76	L5
L6	L5 and l2	0	L6
L7	L5 and schizophrenia	1	L7
DB=USPT,DWPI; PLUR=YES; OP=ADJ			
L8	disrupted-in-schizophrenia ordisrupted in schizophrenia or DIS1	91	L8
L9	disrupted-in-schizophrenia ordisrupted in schizophrenia or (DIS1 and schizophrenia)	1	L9
L10	L9	1	L10

END OF SEARCH HISTORY

Identification of polymorphisms within **Disrupted** in **Schizophrenia** 1 and **Disrupted** in **Schizophrenia** 2, and an investigation of their association with schizophrenia and bipolar affective disorder.

AUTHOR: Devon R S; Anderson S; Teague P W; Burgess P; Kipari T M; Semple C A; Millar J K; Muir W J; Murray V; Pelosi A J; Blackwood D H; Porteous D J

CORPORATE SOURCE: Medical Genetics Section, University of Edinburgh, Molecular Medicine Centre, Western General Hospital, UK.. rebecca@cmmt.ubc.ca

SOURCE: PSYCHIATRIC GENETICS, (2001 Jun) 11 (2) 71-8.
Journal code: 9106748. ISSN: 0955-8829.

PUB. COUNTRY: England: United Kingdom

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200203

ENTRY DATE: Entered STN: 20010830
Last Updated on STN: 20020308
Entered Medline: 20020307

AB We have undertaken a search for polymorphic sequence variation within **Disrupted** in **Schizophrenia** 1 and **Disrupted** in **Schizophrenia** 2 (**DISC1** and DISC2), which are both novel genes that span a translocation breakpoint strongly associated with schizophrenia and related psychoses in a large Scottish family. A scan of the coding sequence, intron/exon boundaries, and part of the 5' and 3' untranslated regions of **DISC1**, plus 2.7 kb at the 3' end of DISC2, has revealed a novel microsatellite and 15 novel single nucleotide polymorphisms (SNPs). We have tracked the inheritance of four of the SNPs through multiply affected families, and carried out case-control association studies using the microsatellite and four common SNPs on populations of patients with schizophrenia or bipolar affective disorder versus normal control subjects. Neither co-segregation with disease status nor significant association was detected; however, we could not detect linkage disequilibrium between all these markers in the control population, arguing that an even greater density of informative markers is required to test rigorously for association in this genomic region.

Identification of polymorphisms within **Disrupted** in **Schizophrenia** 1 and **Disrupted** in **Schizophrenia** 2, and an investigation of their association with schizophrenia and bipolar affective disorder.

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CORPORATE SOURCE: Medical Genetics Section, University of Edinburgh, Molecular Medicine Centre, Western General Hospital, UK.. rebecca@cmmt.ubc.ca

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Chromosomal location and genomic structure of the human translin-associated factor X gene (TRAX; TSNAX) revealed by intergenic splicing to **DISC1**, a gene disrupted by a translocation segregating with schizophrenia.

AUTHOR: Millar J K; Christie S; Semple C A; Porteous D J
CORPORATE SOURCE: Department of Medical Sciences, The University of Edinburgh, Scotland, United Kingdom..
Kirsty.Millar@ed.ac.uk

SOURCE: GENOMICS, (2000 Jul 1) 67 (1) 69-77.
Journal code: 8800135. ISSN: 0888-7543.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
OTHER SOURCE: GENBANK-AF222988; GENBANK-AF230314; GENBANK-AF230315; GENBANK-AF230316; GENBANK-AF230317
ENTRY MONTH: 200101
ENTRY DATE: Entered STN: 20010322
Last Updated on STN: 20010322
Entered Medline: 20010111

AB Two candidate genes, **DISC1** and DISC2 on chromosome 1, are disrupted by a translocation that segregates with major psychiatric illness. Several **DISC1** transcripts contain TRAX (HGMW-approved symbol TSNAX) sequence at the 5' end. These transcripts initiate at the 5' end of TRAX and terminate at the final exon of **DISC1**. Five species of transcript resulting from intergenic splicing have been identified; one encodes a novel TRAX/**DISC1** fusion protein. The remaining four transcripts are bicistronic and encode a series of novel truncated isoforms of TRAX and **DISC1**. Demonstration that the various TRAX/**DISC1** transcripts are translated awaits further experimentation. As a consequence of the observation of intergenic splicing, the human TRAX gene has been mapped at least 35 kb proximal to **DISC1** and within approximately 150-250 kb of the translocation breakpoint at 1q42.1. The TRAX gene consists of six exons with a putative CpG island at the 5' end. Four major transcripts are produced from this gene, of which the smallest, at 2.7 kb, had previously been identified.

PREV200100547661

TITLE: Evaluation of DISC-1 expression in human brains.

AUTHOR(S): Ozeki, Y. (1); Fujii, K. (1); Kamiya, A. (1); Otsuki, H. (1); Luo, X.; Yamada, N. (1); Margolis, R. L.; Ohkawa, M. (1); Snyder, S. H.; Ross, C. A.; Sawa, A.

CORPORATE SOURCE: (1) Psychiatry, Shiga Univ Med Sci, Otsu Japan

SOURCE: Society for Neuroscience Abstracts, (2001) Vol. 27, No. 1, pp. 1493. print.
Meeting Info.: 31st Annual Meeting of the Society for Neuroscience San Diego, California, USA November 10-15, 2001
ISSN: 0190-5295.

DOCUMENT TYPE: Conference

LANGUAGE: English

SUMMARY LANGUAGE: English

AB DISC-1 (**Disrupted**-In-**Schizophrenia**) is a transcript whose open reading frame is disrupted by a balanced chromosomal translocation in a large Scottish family. The chromosomal translocation is highly associated with major mental illnesses in the family, suggesting that DISC-1 may confer vulnerability to major mental illnesses, especially schizophrenia. In our preliminary in situ hybridization experiments in rat, we found high expression of DISC-1 messenger RNA in olfactory bulb, moderate expression of DISC-1 in hippocampus and cortex, and little in cerebellum. This could be consistent with a function in olfaction, limbic functioning, cognition, and memory, processes thought to be involved in schizophrenia. To evaluate protein expression of DISC-1, we have developed an antibody against DISC-1. We generated a recombinant protein of 254 amino acids in C terminal end of DISC-1 conjugated with GST in E. coli. We purified the recombinant protein from the extract of E. coli, and used the antigen to produce antisera against DISC-1 in rabbits. After obtaining the antisera, we have obtained a pure antibody against DISC-1 through immuno-affinity columns. Using the antibody, we have confirmed the existence of DISC-1 at protein level, which is enriched in olfactory bulb and hippocampus. We are now collecting brains with schizophrenia and normal control subjects, to compare DISC-1 expression between patients and controls.

Disruption of two novel genes by a translocation co-segregating with schizophrenia.

AUTHOR: Millar J K; Wilson-Annan J C; Anderson S; Christie S; Taylor M S; Semple C A; Devon R S; Clair D M; Muir W J; Blackwood D H; Porteous D J

CORPORATE SOURCE: Medical Genetics Section, Department of Medical Sciences, The University of Edinburgh, Molecular Medicine Centre and MRC Human Genetics Unit, both at Western General Hospital, Crewe Road, Edinburgh EH4 2XU, UK.. kirsty.millar@ed.ac.uk

SOURCE: HUMAN MOLECULAR GENETICS, (2000 May 22) 9 (9) 1415-23. Journal code: 9208958. ISSN: 0964-6906.

PUB. COUNTRY: ENGLAND: United Kingdom

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200008

ENTRY DATE: Entered STN: 20000907
Last Updated on STN: 20000907
Entered Medline: 20000829

AB A balanced (1;11)(q42.1;q14.3) translocation segregates with schizophrenia and related psychiatric disorders in a large Scottish family (maximum LOD = 6.0). We hypothesize that the translocation is the causative event and that it directly disrupts gene function. We previously reported a dearth of genes in the breakpoint region of chromosome 11 and it is therefore unlikely that the expression of any genes on this chromosome has been affected by the translocation. By contrast, the corresponding region on chromosome 1 is gene dense and, not one, but two novel genes are directly disrupted by the translocation. These genes have been provisionally named **Disrupted**-In-**Schizophrenia** 1 and 2 (**DISC1** and DISC2). **DISC1** encodes a large protein with no significant sequence homology to other known proteins. It is predicted to consist of a globular N-terminal domain(s) and helical C-terminal domain which has the potential to form a coiled-coil by interaction with another, as yet, unidentified protein(s). Similar structures are thought to be present in a variety of unrelated proteins that are known to function in the nervous system. The putative structure of the protein encoded by **DISC1** is therefore compatible with a role in the nervous system. DISC2 apparently specifies a non-coding RNA molecule that is antisense to **DISC1**, an arrangement that has been observed at other loci where it is thought that the antisense RNA is involved in regulating expression of the sense gene. Altogether, these observations indicate that **DISC1** and DISC2 should be considered formal candidate genes for susceptibility to psychiatric illness.

ACCESSION NUMBER: 2001-12456 BIOTECHDS
TITLE: Novel isolated polynucleotide which surrounds a breakpoint on
chromosome 1 involved in a balanced t(1;11) (q42.1;q14.3) translocation, and its encoded proteins, useful as medicament
for treating psychiatric disorders;
involving vector-mediated gene transfer for expression in host cell
AUTHOR: Porteous D; Millar K; Blackwood D
PATENT ASSIGNEE: Akzo-Nobel; Med.Res.Counc.; Univ.Edinburgh
LOCATION: Velperweg, The Netherlands; London, UK; Edinburgh, UK.
PATENT INFO: WO 2001040301 7 Jun 2001
APPLICATION INFO: WO 2000-EP11915 28 Nov 2000
PRIORITY INFO: EP 1999-309667 1 Dec 1999
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 2001-374796 [39]
AN 2001-12456 BIOTECHDS
AB A substantially pure polynucleotide (I), encoding a fully defined **disrupted** in **schizophrenia** (DIS)1 amino acid sequence of 854 or 832 amino acids, or their isoforms, is claimed. Also claimed are: a recombinant expression vector (II) comprising (I) or its fragments; a protein (III) having the disclosed sequence or its isoforms;
cell line transformed with (I) encoding (III); cell line transformed with
(I) or its fragments or transformed with (II); use of a polynucleotide hybridizable to the DIS1 gene in the in vitro diagnosis of a psychiatric disorder; antibodies against (III); and a pair of oligonucleotide primers. (III) encoded by (I), or its fragments and the cell line is useful for in vitro diagnosis of a psychiatric disorder. (I) or its fragments or (II) is useful in screening assay for identifying new drugs.
(III), its analogs or fragments, and cell lines are also useful for identifying new drugs for treating psychiatric disorders. (III) is useful as a therapeutic agent in that they may substitute the gene product in the individuals with aberrant expression of DIS1 gene.
(51pp)

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